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USCG-2003-14733-3

Cost Assessment

and

Initial Regulatory Flexibility Analysis

Area Maritime Security

Temporary Interim Rule

USCG-2003-14733

June 30, 2003
Standards Evaluation and Analysis Division (G-MSR-1)
U.S. Coast Guard Headquarters

Acronyms

APA	Administrative Procedures Act
AMS	Area Maritime Security
AOR	Area of Responsibility
BLS	U.S. Department of Labor Bureau of Labor Statistics
CFR	Code of Federal Regulations
COTP	Captain of the Port
DHS	U.S. Department of Homeland Security
DOT	U.S. Department of Transportation
FMSC	Federal Maritime Security Coordinator
FR	Federal Register
IMO	International Maritime Organization
IRFA	Initial Regulatory Flexibility Analysis
ISPS	International Ship and Port Facility Security Code
MARAD	U.S. Maritime Administration
MARSEC	Maritime Security Level
MTSA	Marine Transportation Security Act of 2002
NAICS	North American Industry Classification System
NVIC	Navigation and Vessel Inspection Circular
PV	Present Value
SBA	Small Business Administration
TIR	Temporary Interim Rule
TSI	Transportation Security Incident
USC	United States Code

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Executive Summary

Note: for definitions of acronyms, refer to the list at the beginning of the report.

Although the Coast Guard is exempt from the APA for the MTSA rulemakings, we have prepared this analysis presenting the scope and magnitude of costs that the maritime transportation industry could incur for implementing and complying with the TIR titled "Area Maritime Security" (USCG-2003-14733) as authorized by the MTSA of 2002.

The TIR requires Coast Guard to develop and implement security plans for U.S. maritime areas and ports with the voluntary participation of other public and private sector maritime transportation stakeholders. The TIR is one of six interim rules published in the Federal Register that comprise a new subchapter on the requirements for maritime security mandated by the Maritime Transportation Security Act of 2002. The six rules implement national maritime security initiatives concerning area maritime transportation, vessels, facilities, offshore facilities, and the Automatic Identification System. They align domestic maritime-security requirements with those of the ISPS Code and recent amendments to the International Convention for the Safety of Life at Sea.

This analysis presents the scope and magnitude of costs that the maritime transportation industry could incur for implementing and complying with the TIR as authorized by the MTSA 2002. The purpose of this report is to present the broad set of assumptions that we used to develop our cost estimates, document our analysis, and make that information available to the public for comment.

For the purposes of good business practice or regulations promulgated by other Federal and State agencies, many companies have spent, to date, a substantial amount of money and resources to upgrade and improve security. The costs shown in this analysis do not include resources these stakeholders have already spent to enhance security.

We realize that every stakeholder engaged in maritime commerce would not implement the TIR exactly as presented in this analysis. Depending on each stakeholder's choices, some stakeholders could spend much less than what is estimated herein while others could spend significantly more. In general, we assume that a stakeholder would implement the TIR based on the operations it has in its home port or maritime area.

This analysis presents the estimated cost if U.S. ports and maritime areas are operating at MARSEC 1 (the current level of operations since the events of September 11, 2001). We do not estimate costs for MARSEC 2 or 3 because the nature of a threat will determine the cost of responding to that threat for this TIR. Depending on circumstances, one port, a U.S. coast, or the entire country could have an elevated MARSEC Level. The costs for this vast range of threat levels are difficult to estimate with any accuracy. Under MARSEC 2 and 3, we would expect not just the immediate effects of increasing security with more personnel and more screening, but also "ripple" effects – delayed commerce, decreased product availability, price increases, increased unemployment, unstable markets worldwide, even negative psychological effects of threats. The recent shut-down of the West Coast ports, while not in response to a security threat, present a good example of the economic costs that we could experience under increased MARSEC Levels.

Based on this analysis, the first-year cost of security plans, paperwork, and drilling is an estimated $120 million (non-discounted). Following initial implementation, the annual cost is approximately $46 million (non-discounted). Over the next 10 years, the cost would be PV $477 million (2003–2012, 7 percent discount rate).

The paperwork burden associated with planning and drilling would be approximately 1,203,200 hours in 2003, 1,090,400 hours in 2004, and 488,800 hours in subsequent years. The impact on small entities that choose to participate fully in the AMS Committee is minimal.

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Cost Assessment

Note: for definitions of acronyms, refer to the list at the beginning of the report.

Summary

Although the Coast Guard is exempt from the APA for the MTSA rulemakings, we have prepared this analysis presenting the scope and magnitude of costs that the maritime transportation industry could incur for implementing and complying with the TIR titled "Area Maritime Security" (USCG-2003-14733) as authorized by the MTSA of 2002.

The TIR will affect stakeholders in 47 maritime areas containing 361 ports. This analysis presents the estimated cost if U.S. ports and maritime areas are operating at MARSEC 1 (the current level of operations since the events of September 11, 2001). We do not estimate costs for MARSEC 2 or 3 because the nature of a threat will determine the cost of responding to that threat. This analysis details estimated costs to public and private stakeholders in these maritime areas and does not include costs to the Coast Guard.

The total cost estimate of the rule is PV $477 million (2003–2012, 7 percent discount rate). The initial cost of the startup period (June 2003–December 2003) for establishing AMS Committees and creating AMS Plans is estimated to be $120 million (non-discounted) for all areas. Following the startup period, the first year of implementation (2004), consisting of monthly AMS Committee meetings, AMS Plan drill, and AMS Plan exercises for all areas, is estimated to be $106 million (non-discounted). After the first year of implementation, the annual cost of quarterly AMS Committee meetings and AMS Plan drills for all areas is estimated to be $46 million (non-discounted). The startup period cost associated with creating AMS Committees and Plans for each area is the primary cost driver of the rule. Both the startup and implementation year period (2003–2004) combined is nearly half of the total 10-year PV cost estimate, making initial development, planning, and testing the primary costs of Area Maritime Security.

This rule will designate the Coast Guard Captain of the Port (COTP) as the Federal Maritime Security Coordinator (FSMC) in the COTP's Area of Responsibility (AOR). This rule requires all COTPs to develop security committees, plans, and communication drills for their AORs, with the participation of maritime transportation stakeholders in their areas. The above costs to stakeholders will be paperwork and travel costs associated with participation in AMS Plan implementation.

We estimate 1,203,200 hours of paperwork and other associated planning activities during 2003, the initial period of security meetings and development. In 2004, the first year of implementation, we estimate the value will fall slightly to 1,090,400 hours of paperwork and other related information and communication activities related to monthly AMS Committee meetings. In subsequent years, we estimate the hours will fall to 488,800 hours annually associated with AMS Committee meetings, AMS Plan revisions, and AMS management exercises and information drills.

Analysis

Period of Analysis

The period of analysis is from mid 2003 (the startup year) to 2012 (approximately 10 years). The security aspects of the rule would be effective in 2004, so we assume the last 6 months in 2003 of the project to be a startup period of establishing AMS Committees and creating AMS Plans for all maritime areas of responsibility. We assume, therefore, that initial costs will be incurred in 2003, and annual costs will be incurred each year 2004–2012.

Population Affected

The rule will affect stakeholders nationally in 47 maritime areas (COTP AORs) containing 361 total ports. The Army Corps of Engineers Navigation Data Center and MARAD provided the data for total ports affected. For this analysis, ports or maritime areas include all areas located within or adjacent to a marine environment through which maritime commerce is conducted or people are transported. As FMSC, the COTP determines the size and composition of the AMS Committee and the stakeholders invited to participate in committees, planning, exercises and drills. The affected population per maritime area is assumed to be stakeholders who fully participate in the AMS Committees, Planning, Exercises, and Drills. A stakeholder is considered to be any business, organization, (non-Federal) government entity, or individual involved with maritime commerce in a given port area.

We believe the composition and number of stakeholders will vary greatly from area to area and will be determined by the commercial scope of the ports in each maritime area. For the purpose of estimating average costs, we assumed the average level of meeting, planning, exercise, and drilling participation to be 200 stakeholders per maritime area, based on discussions with COTPs and estimates of average U.S. facility and vessel presence per port. We understand that some maritime areas may have higher participation levels and other maritime areas have significantly lower participation levels; however, we believe this to be a reasonable national estimate of stakeholder participation per maritime area.

Unit Cost Assumptions

The cost of the rule per stakeholder is expected to be small in comparison to facility and vessel security implementation. Stakeholders are not required to purchase or upgrade materials or services, as in the regulations for facilities or vessels. Some companies and facilities are required to have CSOs and FSOs (as detailed in the vessel and facility security regulations) attend at least one of the quarterly AMS Committee meetings a year; however, we expect few stakeholders to fully participate in all of the startup or annual activities for a given maritime area. Finally, most stakeholders in large to medium-sized ports have already completed or adopted appropriate and transferable AMS Plans before this rule became effective.

All costs for this rule are related to personnel and collection of information activities. Stakeholder hourly costs are assumed to be $100 per burden hour for managerial personnel and $35 per burden hour for administrative/clerical personnel. These costs are "loaded" wage rates, which means they include benefits, local travel, and other overhead costs. These rates are based on BLS data and previous Coast Guard analyses that estimated meeting and planning costs. While some employees cost more than this and some cost less, we believe these estimates for the two labor types are reasonable average costs of the employees that would conduct this work.

The stakeholder costs are divided into three activities: AMS Committee meetings, AMS Plan development, and AMS Exercises and Drills, which include tabletop management exercises and administrative information collection drills.

AMS Committee meetings are estimated to consume an average of 6 hours for office preparation and meeting time, plus 2 hours of travel time. AMS Committee meetings are monthly for the first 18 months and quarterly thereafter. Initial AMS Plan development and planning is estimated to be a maximum of 80 hours (2 weeks) of non-AMS Committee meeting time in the remainder of 2003. AMS Administrative Drills and Management Exercises are information and communication routines that will take place at the stakeholder site. Administrative drills will occur twice a year for 2 hours to update company and facility contact information. Management exercises will occur four times a year for 4 hours to test AMS Plan information and communication readiness.

These activities are predominately information-gathering events. Costs to stakeholders, therefore, are determined by the loaded labor rate and the total hours each type of labor will be involved in each activity.

The frequency of the AMS Committee meeting activity, estimated hours, and unit cost per stakeholder at a full participation level is presented in Table 1, and the frequency of the AMS Planning, Exercise, and Drill activities, estimated hours, and unit cost per stakeholder at a full participation level is presented in Table 2.

Table 1. AMS Committee Meeting Frequency, Hours, and Unit Cost per Stakeholder

				Initial		Annual	
Stakeholder Meeting	**Hours per Meeting**	**Frequency[1]**	**Cost per Hour**	**Total Hours per Stakeholder**	**Total Cost per Stakeholder**	**Total Hours per Stakeholder**	**Total Cost per Stakeholder**
Startup Meetings							
2003	8	1/month	$100	48	$4,800	-	-
Annual Meetings							
2004	8	1/month	$100	-	-	96	$9,600
2005–2012	8	4/year	$100	-	-	32	$3,200

[1] Startup meetings (July-December 2003) consist of monthly planning meetings; the first year of implementation beginning 2004 consists of 12 monthly meetings; meetings for future years will be quarterly.

Table 2. AMS Planning, Exercise and Drill Frequency, Hours, and Unit Cost per Stakeholder

				Initial		Annual	
Stakeholder Activity	**Hours per Activity**	**Frequency**	**Cost per Hour**	**Total Hours per Stakeholder**	**Total Cost per Stakeholder**	**Total Hours per Stakeholder**	**Total Cost per Stakeholder**
Planning							
2003	80	1/year	$100	80	$8,000	-	-
Management Exercises							
2004–2012	4	4/year	$100	-	-	16	$1,600
Administrative Drills							
2004-2012	2	2/year	$35	-	-	4	$140

Total National Cost for Area Maritime Security

We estimated national cost (both initial and annual) of this rule to public and private stakeholders. Each cost is discounted to its PV at 7 percent for years 2003-2012. National cost of Area Maritime Security TIR is presented in Table 3.

Table 3. National Cost for Area Maritime Security, in $millions (2003-2012, 7 percent discount rate)

	Plans	**Meetings**	**Exercises/ Drills**	**Total**	**PV Total**
2003 (initial)	$75	$45	$ -	$120	$120
2004 (annual)	-	90	16	106	99
2005 (annual)	-	30	16	46	40
2006 (annual)	-	30	16	46	38
2007 (annual)	-	30	16	46	35
2008 (annual)	-	30	16	46	33
2009 (annual)	-	30	16	46	31
2010 (annual)	-	30	16	46	29
2011 (annual)	-	30	16	46	27
2012 (annual)	-	30	16	46	25
Total Cost ($m)	**$75**	**$375**	**$144**	**$594**	**$477**

As shown, the initial cost associated with creating an AMS Plan and holding AMS Committee meetings for each maritime area is the primary cost driver of the rule. In addition, both the startup and implementation year periods (2003–2004) combined are nearly half of the total 10-year PV cost, making initial development and planning the primary costs of this rule. These estimates are the upper bounds of the anticipated costs because most stakeholders have already done some security planning and organization. Furthermore, the level of stakeholder participation may not be as high as 200 per maritime area, and stakeholders will not be required to participate in all of the security activities and drills in a given year.

Initial Regulatory Flexibility Analysis

Note: for definitions of acronyms, refer to the list at the beginning of the report.

Although the Coast Guard is exempt from the APA for the MTSA rulemakings, we have prepared this IRFA to examine the impacts of the TIR on small entities (5 U.S.C. 601-612). A small entity may be—

- A small business, defined as any independently owned and operated business not dominant in its field that qualifies as a small business per the Small Business Act (15 USC 632)
- A small not-for-profit organization
- A small governmental jurisdiction (locality with fewer than 50,000 people)

The stakeholders affected by this rule include a variety of businesses and governments. The COTP will designate approximately 200 stakeholders per maritime area to engage in security planning, meetings, exercises, and drills. Full participation by these stakeholders will be voluntary. We estimate the first-year cost per stakeholder (full participation in this rule) to be $12,800 (non-discounted). In subsequent years, the annual cost per stakeholder (full participation in the rule) falls to $4,940 (non-discounted).

We determined which entities were small based on the North American Industry Classification System (NAICS) and the *Dun & Bradstreet*, *Lexis-Nexis*, and *Reference USA* databases available online. In some cases, businesses are small based on the number of employees, though many businesses are classified based on their annual revenues. The following analysis studies the port and facility small entities that may be impacted by this TIR. However, based on the following analysis, we certify that this TIR will not have a significant economic impact on a substantial number of small entities.

Port Authorities, Owners, and Operators

There are approximately 361 total ports and waterway area authorities, owners, or operators affected by the rule, 117 of which we estimate to be possible small entities. Information was available for 81 small entities. The small entities affected by this rule include a variety of port and waterway administrators, operators, and owners. These small entities include local governments, business, or a mix of both.

We considered the impact on small entities that are port authorities, owners, and operators in the first year of implementation of the rule. The economic impact is based on the first-year cost per stakeholder (not discounted) of full participation with all first-year tasks of the rule. The effect of first-year cost on annual revenue for small entities is presented in Table 4.

Table 4. Effect of First Year Cost on Annual Revenue for Port Authority Small Entities[1]

Percent Impact on Annual Revenue	Number of Small Entities with Revenue Data	Percent of Small Entities with Revenue Data	Expanded Number of Small Entities with Unknown Revenue Data	Total Number of Small Entities
0-3%	71	88%	32	103
> 3-5%	5	6%	2	7
> 5-10%	5	6%	2	7
> 10-20%	-	-	-	-
> 20-30%	-	-	-	-
> 30%	-	-	-	-
Total	**81**	**100%**	**36**	**117**

[1] This table presents the impact on port authorities, owners or operators of 361 ports that are considered to be small entities. The economic impact is based on the annual cost (not discounted) of full participation in the rule.

We also consider the impact of the annual costs of the rule on small entities that are port authorities, owners, and operators. This impact will be based on the annual cost per stakeholder (not discounted) of full participation in all annual elements the rule. The effect of annual cost on revenue for these small entities is presented in Table 5.

Table 5. Effect of Annual Cost on Average Revenue for Port Authority Small Entities[1]

Percent Impact on Annual Revenue	Number of Small Entities with Revenue Data	Percent of Small Entities with Revenue Data	Expanded Number of Small Entities with Unknown Revenue Data	Total Number of Small Entities
0–3%	78	96%	35	113
> 3–5%	3	4%	1	4
> 5–10%	-	-	-	-
> 10–20%	-	-	-	-
> 20–30%	-	-	-	-
> 30%	-	-	-	-
Total	**81**	**100%**	**36**	**117**

[1] This table presents the impact on port authorities, owners or operators of 361 ports that are considered to be small entities. The economic impact is based on the annual cost (not discounted) of full participation in the rule.

The results above suggest that the impact of this rule are not significant for port and maritime area authorities, owners, or operators because of the low average annual cost per stakeholder and the voluntary nature of participating in this rule. We estimate the majority of small entities have a less than 3 percent impact on revenue if they choose to fully participate in the rule. We anticipate the few remaining small entities that may have a greater than 3 percent impact on annual revenue will either opt-out (not participate), or partially participate in the rule to the extent that the impact on revenues is not a burden.

Other Stakeholders

There are other stakeholders affected by this rule in addition to port authorities, owners, and operators. The stakeholders could be any entity that the COTP invites to partial or full participation in this rule. We anticipate the impact on other possible small entity stakeholders to be minimal because of the low average annual cost per stakeholder and the voluntary nature of participating in this rule.

We considered owners of facilities and terminals, for example, in and around port and maritime areas. We found approximately 1,200 facility and terminal owners affected by the rule, 296 of which could possibly be small entities. The economic impact is based on the first-year and annual cost per stakeholder (not discounted) of full participation with the rule. The effect of the rule on annual revenue for facility and terminal small entities is presented in Table 6.

Table 6. Effect of Cost on Annual Revenue for Facility and Terminal Small Entities[1]

Percent Impact on Annual Revenue	Number Affected by First-Year Cost	Percent Affected by First-Year Cost	Number Affected by Annual Cost	Percent Affected by Annual Cost
0–3%	292	99%	295	100%
> 3–5%	-	-	1	< 1%
> 5–10%	3	1%	-	-
> 10–20%	1	< 1%	-	-
> 20–30%	-	-	-	-
> 30%	-	-	-	-
Total	**296**	**100%**	**296**	**100%**

[1] This table presents the impact on facility and terminal owners or operators that are considered to be small entities. The impact is based on the first-year and annual cost of full participation in the rule.

We analyzed the first-year and annual cost effect of this rule and found that nearly 99% of all facility and terminal small entities had minimal or no impact on annual revenue. We therefore anticipate no significant impact on other types of stakeholders that qualify as small entities affected by this rule because of the low annual cost per stakeholder and the voluntary nature of this rule.

Therefore, the Coast Guard certifies under 5 U.S.C. 605(b) that this TIR will not have a significant economic impact on a substantial number of small entities. If you think that your business, organization, or governmental jurisdiction qualifies as a small entity and that this rule will have a significant economic impact on it, please submit a comment to the Docket Management Facility at the address under ADDRESSES. In your comment, explain why you think it qualifies and how and to what degree this rule would economically affect it.